

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows.

1. (Currently Amended) A ~~setting process for method~~ for detecting an object in a detection region, comprising: an intruding object detecting apparatus radiating a radio wave into a detection region to receive a radio wave (a reflection wave) reflected from an object intruding into said detection region and to thereby detect said object, in which
placing a reflector reflecting a radio wave is placed in a place that is set as said in the
detection region;
radiating the detection region with a radio wave is radiated-transmitted from a
transmission antenna of said intruding object detecting apparatus;
receiving a reflected reflection-wave reflected by the from said reflector is received by
using a reception antenna; of said intruding object detecting apparatus; and
calculating a position of the said reflector calculated-based on said reflection-the reflected
wave; and
storing the calculated position is stored into storage means of said intruding object
detecting apparatus as said as the detection region.

2. (Currently Amended) A ~~setting process for method~~ for detecting an object in a detection region, comprising: an intruding object detecting apparatus radiating a radio wave into a detection region to receive a radio wave (a reflection wave) reflected from an object intruding into said detection region and to thereby detect said object, in which
placing a transmitter transmitting a radio wave is placed in a place that is set as said
in the detection region; [[,]]
receiving a radio wave from said the transmitter is received by using a reception antenna;
of said intruding object detecting apparatus and
calculating a position of the said transmitter calculated-based on the radio an radio-wave
from said the transmitter; and
storing the calculated position is stored into storage means of said intruding object
detecting apparatus as said as the detection region.

3. (Currently Amended) The method of setting process for an intruding object detecting apparatus according to claim 2, wherein further comprising:
inputting a setting value; said transmitter includes input means;
transmitting the said transmitter transmits an inputted setting value using the transmitter;
from said input means;
determining the said intruding object detecting apparatus determines said detection
region based on the said setting value; that said intruding object detecting
apparatus receives and said position of said transmitter calculated based on a
radio wave from said transmitter and
storing the said detection region is stored into said storage means.
4. (Currently Amended) A setting process for an intruding object detecting apparatus radiating
a radio wave into a detection region to receive a radio wave (a reflection wave) reflected
from an object intruding into said detection region and to thereby detect said object, in which
method for detecting an object in a detection region, comprising:
placing a setting apparatus comprising constituted of a reflector reflecting a radio wave
and a transmitter transmitting a radio wave is placed in a place that is set as in the
detection region; [[,]]
receiving a radio wave transmitted from said from the setting apparatus is received by
using a reception antenna; of said intruding object detecting apparatus;
radiating the detection region with a radio wave is radiated-transmitted from a
transmission antenna of said intruding object detecting apparatus,
receiving a reflected reflection wave reflected by the from said setting apparatus is
received by said using the reception antenna; of said intruding object detecting
apparatus and
calculating a position of said the setting apparatus calculated based on the [[a]]radio
wave from the transmitted by said setting apparatus and the reflected said
reflection wave; and
storing the calculated position as the is stored into storage means of said intruding object
detection apparatus as said detection region.

5. (Currently Amended) A method for confirming a position of an object in a detection region,
~~comprising: confirmation process for setting with an intruding object detecting apparatus~~
~~radiating a radio wave into a detection region to receive a radio wave (a reflection wave)~~
~~reflected from an object intruding into said detection region and to thereby detect said object,~~
 in which

placing a reflector reflecting a radio wave is placed in said in the detection region; [[,]]
radiating the detection region with a radio wave is radiated-transmitted from a
transmission antenna; of said intruding object detecting apparatus;
receiving a reflected reflection-wave reflected by the from said-reflector is received by
using a reception antenna; of said intruding object detecting apparatus and
calculating eollation is performed on a position of the said-reflector eaculated-based on
the said-reflection wave; and
comparing the calculated position said-with a stored detection region; and stored in
advance in storage means of said intruding object detecting apparatus;
outputting wherein said intruding object detecting apparatus outputs a detection signal
when the calculated in a case where said position of said-reflector is in the
included in said-detection region.

6. (Currently Amended) A method for confirming a position of an object in a detection region,
~~comprising: confirmation process for setting with an intruding object detecting apparatus~~
~~radiating a radio wave into a detection region to receive a radio wave (a reflection wave)~~
~~reflected from an object intruding into said detection region and to thereby detect said object,~~
 in which

placing a transmitter transmitting a radio wave is placed in the detection region; [[,]]
transmitting a radio wave is-transmitted from the said-transmitter; and
comparing eollation is performed on a position of the said-transmitter that is calculated
based on the [[a]]radio wave from said-transmitter and-with a stored said
detection region; and stored in advance in storage means of said intruding object
detecting apparatus;

~~outputting wherein said intruding object detecting apparatus outputs a detection signal when the in a case where said position of the said transmitter is included in the said detection region.~~

7. (Currently Amended) An intruding object detecting apparatus for detecting an object within a detection region, ~~radiating a radio wave into a detection region to receive a radio wave (a reflection wave) reflected from an object intruding into said detection region and to thereby detect said object, comprising:~~

a transmission antenna configured to radiate ~~radiating~~ a radio wave;

a reception antenna configured to receive ~~receiving a reflected reflection wave of said radio wave;~~

scanning means configured to alter ~~altering~~ directions or directivities of the said transmission antenna and the said reception antenna;

calculation means configured to calculate ~~calculating~~ a position of the said object based on the said reflection wave received by the said reception antenna and a direction thereof obtained by the said scanning means;

storage means configured to store ~~storing said detection region a predetermined setting value that corresponds to the detection region set in advance by a reflector or a transmitter, or a setting apparatus constituted of said reflector and said transmitter; and~~

comparing ~~collation~~ means configured to compare the collating said position of the said object specified by the said calculation means and the said detection region specified by the setting value stored in the said storage means.

8. (Currently Amended) The intruding object detecting apparatus of claim 7, wherein the setting value is set in advance based on a reflector that reflects the A-reflector setting or confirming setting of a detection region of an intruding object detecting apparatus radiating a radio wave into said detection region to receive a radio wave (a reflection wave) reflected from said object intruding into said detection region and to thereby detect said object, and reflecting a radio wave radiated from a transmission antenna of the said intruding object

detecting apparatus in an almost incident direction of the said radio wave with an opposite sign.

9. (Currently Amended) The intruding object detecting apparatus of claim 7, wherein the setting value is set in advance based on a transmitter that transmits the A-transmitter-setting or confirming-setting of a detection region of an intruding object detecting apparatus radiating a radio wave into said detection region to receive a radio wave (a reflection wave) reflected from an object intruding into said detection region and to thereby detect said object, and transmitting a radio wave having a frequency capable of being received by a reception antenna of the said intruding object detecting apparatus.

10. (Currently Amended) The transmitter according to intruding object detecting apparatus of claim 9, further comprising:

input means configured to input the setting value;[[,]] and

transmitting means configured to transmit the [[a]]setting value inputted from said input means thereto.

11. (Currently Amended) The intruding object detecting apparatus of claim 7, wherein the setting value is set in advance based on a setting apparatus comprising: A-setting apparatus setting or confirming-setting of a detection region of an intruding object detecting apparatus radiating a radio wave into said detection region to receive a radio wave (a reflection wave) reflected from an object intruding into said detection region and to thereby detect said object, comprising:

a reflector configured to reflect the reflecting a radio wave radiated from the [[a]] transmission antenna of said intruding object detecting apparatus in an almost incident direction with an opposite sign; and

a transmitter configured to transmit the reflected transmitting a radio wave with having a frequency that is receivable capable of being received by the [[a]]reception antenna of said intruding object detecting apparatus.